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MEMORANDUM FOR: Deputy Director for Administration
Director of Personnel
Director, Office of Information Technology
Director, Office of Training and Education
Chairman, Human Resources Task Force
Chairman, DCI Management Advisory Group

FROM: Automation Task Force

SUBJECT: The Impact of Automation on Agency Human Resource
Management

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    1. On 12 February, 1986 ⬚ Psychological Services
Division, OMS, first assembled the individuals listed below in order to devote
some thought to the impact of office automation on Agency personnel with
regards to recruitment, testing, training and retention practices. Attached
is a summary of findings and recommendations which we pass on in the hope that
it will be of some help in preparing for the inevitable change in the Agency
office environment.

    2. We note for the record that we speak as individuals, and that nothing
in this memorandum should be viewed as official Agency policy.

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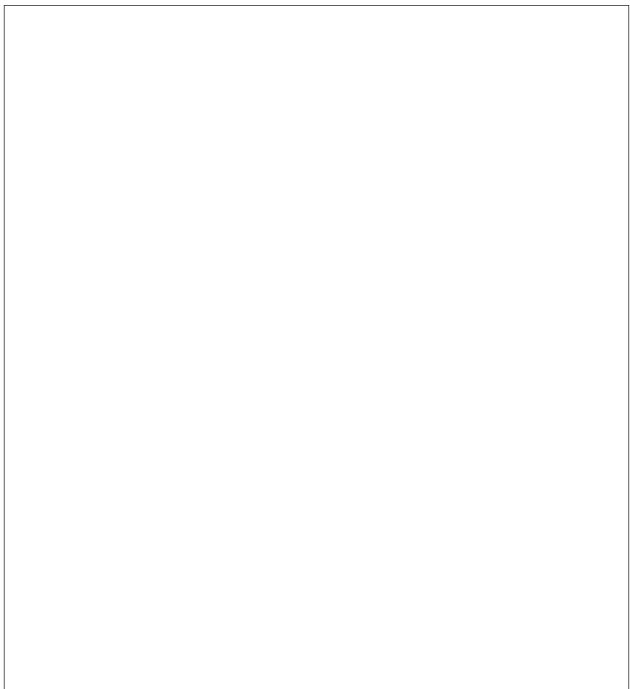
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THE IMPACT OF AUTOMATION ON AGENCY PERSONNEL MANAGEMENT

PROLOGUE

The Agency has ambitious goals for automation. Beginning in the early
1990s, barring unforseen circumstances, there should be in place the basis for
an industry-standard automated office system featuring (within a single
terminal) word-processing, data processing, color graphics and electronic mail
capabilities. This "full-service" system is expected to be available to all
but a very few Agency employees. It will be sufficiently "user-friendly,"
powerful, pervasive and potentially indispensable that it could dramatically
change the way we will carry out the day-to-day operations of the office.

To what extent office automation will impact on Agency personnel
management will depend largely on 1) the ability of Agency technical personnel
to create the system, 2) the availability of a budget to support the endeavor,
and 3) management's commitment to capitalize on the system's capabilities. If
the current Agency posture is any indication of how our office environment
will evolve, then no single strategy for dealing with recruitment, testing,
training and retention will be effective across component lines.   Instead,
each Directorate will have to deal with its own requirements independently,
tailoring job design, performance evaluation and training to be consistent
with the existing and planned office environment in that component.

In any event, the Task Force sees the classical division of labor among
professional, technical and clerical personnel becoming less clearly defined
as office automation takes over many of the routine tasks now relegated to
clerical positions (e.g., typing, filing, answering phones, scheduling,
etc.). Even with today's rudimentary word-processing systems, a growing
number of professionals are typing their own documents, leaving typists the
opportunity to provide higher levels of assistance in substantive aspects of
professional positions. This trend is likely to continue as we approach a
fully automated office environment.

RECRUITMENT

Assuming the Agency office environment continues to evolve toward
maximum use of automation, several adjustments to our recruitment requirements
will be inevitable. While we can expect the school system to prepare the work

force to produce in an automated environment, managers will have to consider the matrix of tasks which will change over the next several years, decide how to separate them into the various positions, then adjust their recruitment requirements accordingly.

The Agency is currently suffering through an acute shortage of clerical personnel, and automation has not yet reached the point where it can fill the gap caused by that shortage. The tendency is to recruit and hire against today's shortages, a pattern that could lead us into a staffing posture which will be inappropriate to the needs of the 1990s. We can expect to require an intensive retraining program when we finally acquire the systems which are already available, not to mention those that will evolve over the next several years. Given the fact that we hire employees for careers, as opposed to short-term jobs, our recruitment requirements should be adapted in concert with anticipated as well as current needs. We, therefore, recommend that the Agency's systems acquisition schedule be studied with a view toward phasing in new recruitment requirements as our level of office automation increases.

TESTING

Both clerical and professional duties will be affected by office automation; however, the current "office-work" testing system is geared to clerical positions. It is our contention that circumstances warrant thinking about office automation aptitude and achievement test batteries for all Agency applicants (if not employees).

The current clerical test program has been in place for a number of years, and it has served the Agency well. Our changing environment, however, suggests to us that it requires a new approach and philosophy. On the one hand, we test clerical applicants on equipment they will probably never see once they come aboard, while we fail to test those myriad activities which will invariably occur on the job. For example, the typing test is administered on non-correcting typewriters. Speed and accuracy are judged on the basis of a candidate's ability to type 40 wpm with no more than two errors. In virtually every Agency office typists now work with correcting typewriters or (more typically) word-processors which significantly enhances their ability to correct errors quickly enough to meet Agency standards. Should we not consider testing on equipment offering the same or similar error-correcting features (assuming the test would not penalize individuals unfamiliar with the equipment or its features)?

The Agency shorthand qualifying test is still administered with material taken from the Gregg Division of McGraw Hill textbooks. The National Security Agency (NSA), the Foreign Service Institute (FSI) and the Federal Bureau of Investigation (FBI) all test with their own organization-specific material containing terminology, format and jargon stenos actually use on their jobs.

Similarly, the Short Employment Test (SET), although validated as a performance predictor in 1980 for certain categories of employees, is rapidly becoming obsolete in relation to job tasks that routinely occur in the Agency office environment. The referenced validation study was limited to the more conventional "pre-automation" kinds of office tasks. Not familiar with validation studies on computer-oriented tasks, we are left with no alternative but to suggest that the clerical aptitude testing program be structured so as to predict performance against standards established for the new environment, if, in fact, there is to be a new environment.

TRAINING

The office automation program evolves as circumstances require, and the clerical training program does likewise. The new Secretarial Career System includes, as an integral part of the system, an extensive job enhancement program which, in turn, dictates more specific and relevant training requirements. It will not surprise us in the least to see our clericals carrying out a wide variety of word-processing, data processing, graphics, and electronic communications tasks at levels of sophistication never thought possible in today's zeitgeist. And, we hasten to add, we envision a similar skill-mix for the professionals. We are, therefore, quite comfortable forecasting that the training process itself is likely to be among the most affected by automation with more computer-assisted training and decentralized classrooms becoming the norm rather than the exception. We do caution, however, that training not lag too far behind, nor surge too far ahead, of the gradual evolution toward an automated office environment.

RETENTION

A primary factor in retaining employees is the degree to which we, as an employer, meet their expectations regarding the job environment. We are beginning to hire employees who were raised with computers in the classroom

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and at home (already the home computer is among the top twenty most common "appliances" - with one in every ten homes). The availability of ADP equipment directly affects the speed and accuracy with which employees can perform their tasks, and therefore, their ability to produce up to their own standards. If the Agency provides outdated equipment and systems to an employee who has become accustomed to state-of-the-art technology, it is almost certain that retention of the best employees will be adversely affected. If the equipment is provided, but the job is not designed to take advantage of those skills and abilities, then dissatisfaction with the job will be inevitable. Also to be considered is the fact that modern ADP systems provide non-judgemental feedback to their users. Employees are likely to accept job oversight from computer systems which would be unacceptable from even the most tactful supervisors.

SUMMARY

The use of desktop computers could expand to include virtually every Agency job other than manual labor over the next ten years. Many jobs will be completely dependent on automation. Whether or not we are prepared for the impact of automation on the work force, the impact will occur. Our ability to recruit, test, train and retain employees who can cope with the transition depends entirely on how well we anticipate the specific changes that will occur in Agency jobs. Without clear and specific goals which link our personnel management strategy to our systems acquisition it is very likely that automation could have a devastating effect on our staffing posture. Major decisions regarding the amount of funding which will be dedicated to systems acquisition and installation must be accompanied by major decisions regarding our human resource strategy and a willingness to devote the required resources to implement such a strategy. Given the atmosphere of austerity projected for the Gramm-Rudman-Hollings era, these decisions will not be easy ones; however, the longer they are delayed the more likely they are to be more expensive than is necessary. We recommend that a group of Agency experts in automation and personnel be assembled, on a full-time basis, to devise a joint strategy for dealing with these problems and tasked to develop realistic alternative approaches to be incorporated with the budget process.

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